

## Vehicle Speed Sensor VN, VAH, VHD

### FSB 386-007, Vehicle Speed Sensor

(November 2014)

On certain Volvo Trucks built from 8/20/2012 to 11/07/2014 with the I-Shift transmission, the vehicle speed sensor (VSS) may fail internally. This is due to a manufacturing defect of the sensor. This failure may cause fault codes related to road speed. This failure can cause multiple SPN 84 FMI 19 faults, both active and inactive, to occur and may cause the MIL light to come on in the dash.

To correct this problem perform the repair below:

### Repair

**Note:** Information is subject to change without notice.

Illustrations are used for reference only and can differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.

You must read and understand the precautions and guidelines in Service Information, group 30, "General Safety Practices" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

- 1 Secure the vehicle for service by parking it on a flat level surface, applying the parking brake, chocking the rear wheels, and placing the transmission in neutral.
- 2 Disconnect all cables from the negative (ground) battery terminal to prevent personal injury from electrical shock and prevent damage to electrical components.
- 3 Disconnect the harness from the vehicle speed sensor (VSS) located at the rear of the transmission.

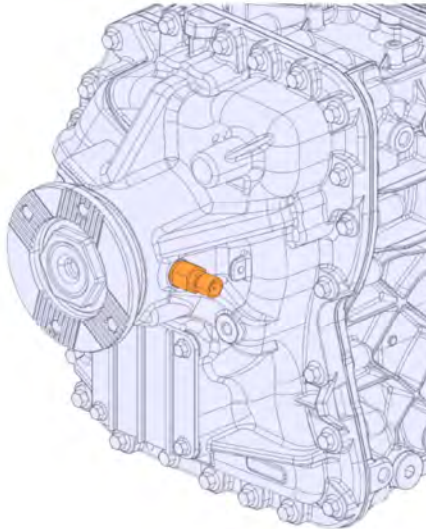
Service personnel: Please circulate, read and initial

| Service Manager | Warranty Administrator | Workshop Foreman | Service Technicians |  |  |  |  |  |  |
|-----------------|------------------------|------------------|---------------------|--|--|--|--|--|--|
|                 |                        |                  |                     |  |  |  |  |  |  |

- 4 Remove the VSS from the transmission.

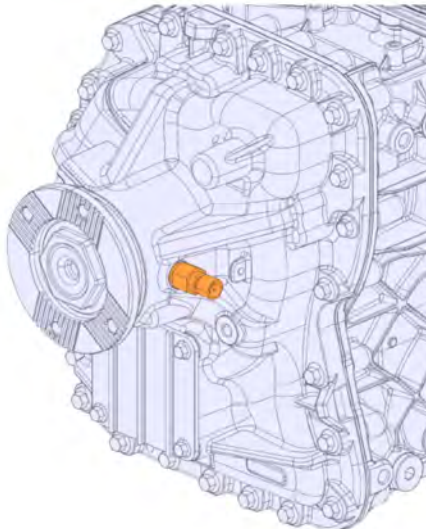
**Note:** If sensor part number 3171490 is found to have been installed and needs to be replaced, this sensor is also replaced with 22387296.

**Note:** If a gasket or shim is present between the sensor and transmission discard it  
**DO NOT** reuse with new sensor.



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- 5 Install the new VSS onto the transmission and secure (part # 22387296).



W3094986

- 6 Tighten the VSS to  $25 \pm 5$  Nm ( $18 \pm 3.7$  ft-lb)
- 7 Connect the harness to the VSS.
- 8 Install all the previously removed cables to the negative (ground) battery terminals.
- 9 Remove the wheel chocks.

**Reimbursement**

|                                                                                                                                                                                                                                |                           |                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------|
| <b>This repair may be eligible for reimbursement if a product failure was experienced within time and mileage limits of the applicable Warranty coverage. Reimbursement is obtained via the normal claim handling process.</b> | Reimbursement<br>UCHP     | Reimbursement<br>eWarranty |
| <b>Claim Type (used only when uploading from the Dealer Bus. Sys.)</b>                                                                                                                                                         | W                         | W                          |
| <b>Labor Code</b>                                                                                                                                                                                                              |                           |                            |
| Primary Labor Code                                                                                                                                                                                                             | 3865-03-09-01<br>0.3 hrs. | 38650-2-00<br>0.3 hrs.     |
| <b>Causal Part</b>                                                                                                                                                                                                             | 213643804                 | 21643804                   |

Volvo Trucks North America reserves the right to make any changes in design or to make additions to or upon its products without incurring any obligations to install the same on vehicles previously built.